

REMARKS

In response to the Office Action mailed November 30, 2004, the present application has been carefully reviewed and amended. Entry of the present amendment and reconsideration of the application is respectfully requested.

Claim Objections

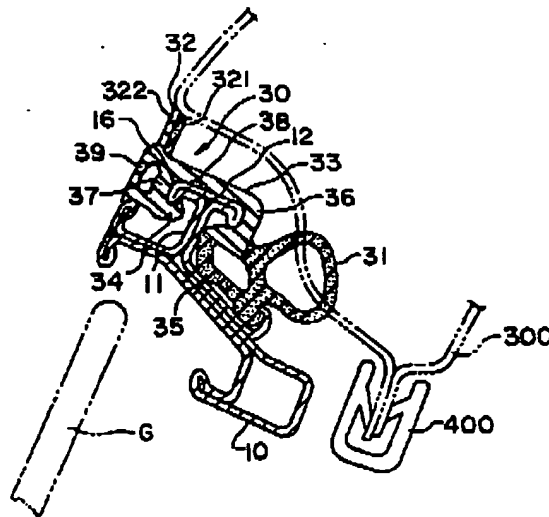
Claims 26 and 39 were found to be substantial duplicates. Claim 39 has been cancelled. Thus, this objection is believed overcome.

Claim Rejections under 35 USC §102

Claim 41 stands rejected under 35 USC §102 as being anticipated by Nozaki (US 5,207,029). Nozaki is relied upon to disclose a weatherseal comprising a sealing surface defined by at least a cellular portion 321 and a non cellular portion 322. [Paper 20041126, page 2].

As amended, Claim 41 recites in part, "the sealing surface defined by at least a pair of spaced cellular portions and a non cellular portion intermediate the cellular portions."

In contrast, Nozaki provides only a single cellular portion 321 and a single non cellular portion 322. Specifically,



Even if the cellular portions 321 and 31 of Nozaki are deemed to be spaced cellular portions of the sealing surface, the intermediate non cellular portion 33, is not a sealing surface, and thus Nozaki does not disclose each of the recited limitations.

Specifically, as Nozaki does not disclose a sealing surface having "a pair of spaced cellular portions and a non cellular portion intermediate the cellular portions" the outstanding rejection has been overcome.

Claim Rejections under 35 USC §103

Claims 1-4, 8-11, 16-18, 21-24, 26-32, 35-43, 46 and 47

Claims 1-4, 8-11, 16-18, 21-24, 26-32, 35-43, 46 and 47 stand rejected under 35 USC §103 as being obvious over Nozaki (US 5,207,029) in view of Bova (US 5,314,752). Nozaki is relied upon to disclose a weatherseal comprising a sealing surface defined by at least a cellular portion 321 and a non cellular portion 322.

Bova is relied upon as teaching "forming a sealing surface of the seal with two materials, one being a freeze release material." [Paper 20041126, page 3]

Applicant respectfully submit Bova discloses a permanent skin surface on the sponge material of a weatherseal to provide the desired freeze release. The noncellular skin composition which is disposed about the cellular body forms a skin which is the contact surface of the weatherseal. Thus, the sealing surface of Bova is a single material, a compounded freeze release material. That the compounded freeze release material is a composition of a plurality of ingredients, the ingredients are compounded to form a single freeze release material which is then disposed about the cellular sealing portion does not suggest the present limitations.

Specifically,

The invention concerns a silicone-modified EPDM modified with a freeze release additive of a fatty acid amide and/or optionally, graphite having at least 85% carbon, and compounded and co-extruded onto the surface of elastomeric sponge automotive weatherstripping thereby forming a permanent skin surface on the sponge material. The resulting material has improved and desirable freeze-release and coefficient of friction properties. These improved properties eliminate the (Abstract)

15 The instant invention represents a cost savings by (1) imparting the necessary freeze release and coefficient of friction properties to EPDM sponge by co-curing a thin-skin of the high performance silicone-modified EPDM based material of this invention onto the EPDM sponge; and (2) eliminating the need for sprayed urethane or silicone coatings to impart the needed surface properties to the weatherstripping. (Col. 2)

SUMMARY OF THE INVENTION

25 The primary object of this invention is to incorporate the necessary freeze-release properties onto the weatherstripping by cocuring a non-cellular skin composition onto the cellular body, also referred to as an elastomer base layer as described in the following description and examples. (Col. 2)

30 rs. They are co-extruded onto the surface of the weatherstrip forming a Permanent skin surface that will have coefficient of friction and release properties similar to urethane and/or silicone spray coatings currently used for this purpose. (Col. 3)

It is the blended compound that provides the freeze release properties and the desired coefficient of the friction in Bova, rather than two materials. Bova obtains the desired freeze release properties by covering the underlying sponge with a non-cellular skin.

The sealing surface of Bova is formed by the non-cellular skin composition.

Applicant respectfully submits there is no disclosure in Bova of "forming a sealing surface of the seal with two materials, one being a freeze release material." [Paper 20041126, page 3]. The cited portion of Bova (Col. 3 line 65

through Col. 4, line 45) is directed to the elastomer employed as a substrate for the co-cured weatherstripping.

The elastomer employed as substrate for the cocured ⁶⁵ weatherstripping may be one of a number of synthetic elastomers. Typical of the possibilities include NBR, SBR, silicone, polychloroprene, EP or EPDM and (Col. 3)

That the Bova substrate can be a variety the elastomers, does not change the express recitation of Bova of the sealing surface being a non-cellular skin of a freeze release material.

The examiner asserts it would have been obvious "to modify the weatherseal of Nozaki with the teachings of Bova to produce an improved seal with desirable freeze release and friction properties." Paper 20041126, page 3]

Bova discloses covering the cellular surface of a weatherseal with a non-cellular skin composition, wherein the skin composition provides the necessary freeze release properties.

To modify the weatherseal of Nozaki with the teachings of Bova would result in the cellular portion 321 and the non-cellular portion 322 of Nozaki being covered with the Bova non-cellular freeze release skin. Such covering would not provide both the freeze release material and at least a portion of the cellular sealing portion defining an outer sealing surface. The proposed combination would provide only the Bova non-cellular freeze release skin forming the outer sealing surface, which in turn is supported by a non-cellular portion and a cellular portion. However, the covered non-cellular and cellular portions would not be a sealing surface, but rather a support for the Bova non-cellular freeze release skin, which forms the sealing surface.

Specifically, the proposed modification of Nozaki with the non-cellular freeze release skin of Bova would be expressly contrary to the following claim limitations: "an outer sealing surface defined by a freeze release material and the polymeric material, the freeze release material and at least a portion of the polymeric material are located to contact the confronting surface" [Claims 1-4, 8-11, 16-18], "the sealing surface including at least two freeze release areas

formed of a first polymeric material and a sealing area formed of a second polymeric material, the freeze release areas extending along the sealing surface to locate a portion of the sealing area intermediate the freeze release areas, at least one of the freeze release areas and the sealing area are in contact with the vehicle panel in the closed position" [Claims 21-24, 26-32, 35-38, 40], "the sealing surface defined by at least a pair of spaced cellular portions and a non cellular portion intermediate the cellular portions" [Claims 41-43], "a sealing surface of the bulb defined by at least a portion of the sealing bulb and an area of a different freeze release material" [Claims 46-47].

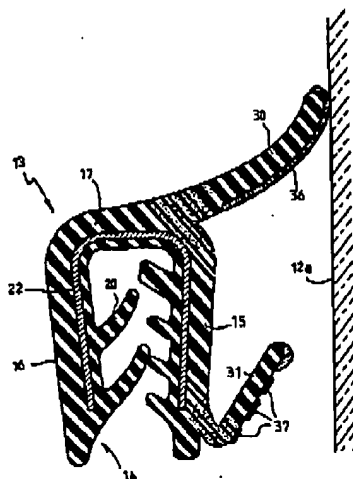
Therefore, the rejection of these claims under 35 USC §103 cannot be sustained.

Claims 1-3, 5-31 and 33-45

Claims 1-3, 5-31 and 33-45 stand rejected under 35 USC §103 as being obvious over Saint-Louis Augustin (US 5,005,317) in view of Bova (US 5,314,752). Saint-Louis Augustin is relied upon to disclose an outer sealing surface defined by two different materials 31 and 37. Bova is again relied upon to disclose quote forming a sealing surface of the seal with two materials, one being a freeze release material." [Paper 20041126, page 3]

Applicant respectfully reasserts the teaching of Bova does not disclose a sealing surface formed of two materials, but rather a single composite skin over a cellular member.

With respect to Saint-Louis Augustin, applicant respectfully submits the outer sealing surface is not defined by different materials 31 and 37. Rather, the material 37 forms the contact surface and hence the sealing surface with the glass 12. The material 31 does not contact the glass, and thus does not to form a sealing surface with the glass. Specifically,



Also advantageously, the bottom lip may be tubular in shape with a fractioned sliding coating, thereby providing greater flexibility without reducing its sealing qualities.

(Col. 2)

That is, the sliding coating is put on the bottom lip 31 to reduce friction with the glass 12. Were the material 31 to contact the glass, it would increase the friction and thus be expressly contrary to the recited purpose of the sliding coating 37.

The bottom lip 31 has its free end and its bottom face coated with a sliding coating 37 which is interrupted by gaps 37', which coating is preferably made of a plastic material having a low coefficient of friction, e.g. a polyolefin or polytetrafluoroethylene. The length and the positions of the coating are such as to ensure that it does not come into contact with the window except when the surface of the window directed towards the wiper seal is in its position 12b, i.e. when the window is fully extended. Thus, in this example, the lip 31 is both shorter than the lip 30 and has a mean axis which makes an angle β relative to the mean axis B of the web of the stub, which angle β is much greater than the angle α made by the top lip 30. The angle β and the length of the bottom lip 31 are chosen in such a manner as to ensure that this lip exerts relatively low pressure on the glass but nevertheless exerts sufficient pressure to ensure sealing when the glass is fully extended, while avoiding any risk of the lip making contact with the glass in any position other than the fully extended position.


(Col. 4)

Therefore, Saint-Louis Augustin does not disclose "an outer sealing surface [is] defined by two, different materials 31 and 37." Only material 37 seals against the glass 12a.

As neither of the cited references disclose the limitations as set forth above, applicant respectfully submits the proposed combination of references cannot sustain the asserted rejections.

Therefore, applicant respectfully submits all the pending claims, Claims 1-38 and 40-47 are in condition for allowance and such action is earnestly solicited. If, however, the Examiner feels any further issues remain, she is cordially invited to call the undersigned so that such matters can be promptly resolved.

Respectfully submitted,



Brian E. Shaw, Registration No. 33,782
HARTER, SECREST & EMERY LLP
1600 Bausch & Lomb Place
Rochester, New York 14604
Telephone: 585-232-6500
Fax: 585-232-2152

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